

February 1967

RC-112
House
Forms
NASA TECH BRIEF

Brief 67-10025



NASA Tech Briefs are issued to summarize specific innovations derived from the U.S. space program, to encourage their commercial application. Copies are available to the public at 15 cents each from the Clearinghouse for Federal Scientific and Technical Information, Springfield, Virginia 22151.

Computer/PERT Technique Monitors Actual Versus Allocated Costs

A computerized method has been developed to measure the user's performance in cost-type contracts with a "cost-index-of-work-accomplished" technique. This utilizes the existing NASA PERT (Program Evaluation Review Technique) without imposing any additional reporting requirements upon the user. A cost index is calculated monthly that compares the user's actual incurred costs with baseline allocated costs. The allocated costs result from a reasonable distribution or allocation of the user's initial cost proposal dollars to activities reflecting this proposal in PERT fragnets. After this initial allocation, the computer calculates with each normal PERT time updating, the allocated costs, or the total-resources-allocated-for-work-accomplished (similar to value of work performed) through the report date.

At the start a fragnet is designed that represents the events, activities, and allocated activity times in graphic form. As the next step, the user's dollar allocation is divided among the activities shown in the fragnet by standard NASA cost distribution practices plus specific unit costs obtained from the user's detailed cost proposal. These dollar allocations are key-punched into the resource columns of NASA PERT activity cards and the cards are fed to the computer.

The resultant printout is a resource report at project start—a dollar distribution by fiscal month, quarter, and year. At regular reporting periods, the user submits adjusted cost data on expenditures in time and dollars per activity and the NASA PERT activity cards are updated accordingly. Each subsequent computer printout, therefore, reflects the progress by comparison of the actual costs with a value of work performed through that specific reporting period.

Notes:

1. A copy of the computer program involved may be obtained by forwarding a reel of IBM compatible magnetic tape to the below address.
2. Inquiries concerning this innovation may be directed to:

Technology Utilization Officer
Lewis Research Center
21000 Brookpark Road
Cleveland, Ohio 44135
Reference: B67-10025

Patent status:

No patent action is contemplated by NASA.

Source: Joseph D. Walker
and Edward Houry
(Lewis-260)

Category 01